

TX • TXU Series

Product Line-up/ Common Specifications/ Materials

Screw terminal block (Rail-mount)

Product Line-up

TX Rail-mount terminal block

The TX rail-mount terminal blocks are globally compliant products certified to UL, CSA, and EN/IEC standards (excluding some models). They can be assembled with the desired number of poles and current capacity, allowing for economical selection.

Product Category	Abstract	Rated Insulation Voltage	Ratings ^{Note1}		Terminal screw ^{Note2}		Product Name	Rough Weight per 1 pole
			Primary Side	Secondary Side	Primary Side	Secondary Side		
Standard Type	<ul style="list-style-type: none"> A standard terminal block with a user-friendly standard structure. A wide range of current capacities and finely segmented frame sizes are available. Compliant with UL and CSA standards. Also certified by TÜV as conforming to EN/IEC standards and compliant with CE marking (excluding some models). Frames up to 400 A are approved for both UL factory wiring and field wiring. 	800V	1.25mm ²	[15A]	M3×6 ⊕ Standard screw		TX7	6g
			2mm ²	[20A]	M3×8 ⊕ Standard screw		TX10SM3	6.5g
					M3.5×8 ⊕ Standard screw		TX10S	6.5g
					M3.5×8 ⊕ Standard screw		TX10	8g
					M4×10 ⊕ Standard screw		TX20	11g
			5.5mm ²	[40A]	M4×10 ⊕ Standard screw		TX20	11g
		8mm ²	[50A]	M5×12 ⊕ Standard screw		TX30	22g	
		14mm ²	[80A]	M5×12 ⊕ Standard screw		TX50	25g	
		22mm ²	[90A]	M6×12 ⊕ Standard screw (with Round Washer)		TX60	37g	
		1000V	38mm ²	[130A]	M8×14 ⊕ Hex bolt		TX100	83g
			60mm ²	[175A]	M8×16 ⊕ Hex bolt		TX150	96g
			100mm ²	[240A]	M10×20 ⊕ Hex bolt		TX200	175g
			150mm ²	[310A]	M10×20 ⊕ Hex bolt		TX300	215g
			200mm ²	[400A]	M12×25 Hex bolt		TX400	382g
			150mm ² ×2	[500A]				
			325mm ²	[600A]	M16×40 Stud		TX600N	650g
325mm ²	[600A]		M16×46 Stud (with Guide)		TX800N	820g		
200mm ² ×2	[800A]							
325mm ²	[600A]		M16×48 Stud (with Guide)		TX1000N	900g		
325mm ² ×2	[1000A]							
Spring-loaded	<ul style="list-style-type: none"> This is a spring-loaded type terminal block. It features a touch-lock function that allows temporary fastening, and a spring-loaded mechanism that raises and holds the screw when loosened — ideal for efficient wiring work. Compliant with UL and CSA standards. Also certified by TÜV as conforming to EN/IEC standards and compliant with CE marking. Frames up to 100 A are approved for both UL factory wiring and field wiring. 	800V	1.25mm ²	[15A]	M3×8 ⊕ Spring-loaded screw terminal		TXU7	7.5g
			2mm ²	[20A]	M3×8 ⊕ Spring-loaded screw terminal		TXU10SM3	8g
					M3.5×8 ⊕ Spring-loaded screw terminal		TXU10S	8g
					M3.5×8 ⊕ Spring-loaded screw		TXU10	9g
					M4×8.5 ⊕ Spring-loaded screw terminal		TXU20	13g
			8mm ²	[50A]	M5×10 ⊕ Spring-loaded screw terminal		TXU30	25g
		14mm ²	[80A]	M5×10 ⊕ Spring-loaded screw terminal		TXU50	28g	
		22mm ²	[90A]	M6×12 ⊕ Spring-loaded screw terminal		TXU60	37g	
		1000V	38mm ²	[130A]	M8×15 ⊕ Hex bolt Spring-loaded screw terminal		TXU100	104g

Note1 Ratings are recommended values with usage in compliance to JIS standards.

Note2 As for the Symbols in Terminal screw columns, ⊕ is plus/minus screw while ⊗ is plus screw.

Common Specifications

Operational Ambience Temperature Range	-25~+55°C (without Freezing nor Dew condensation)
Relative Humidity	45~85%RH
Temperature rise	Max. 45°C of temperature rise at conducting metals
Insulating Resistance	Between each live part and between each live part and the mounting metal plate: Min. 100 MΩ
Commercial Frequency Withstanding Voltage	2500V 1 Min.
Impulse Withstanding Voltage	6000V (TX7~TX10, TXU7~TXU10) ^{Note1} 8000V (TX20~TX60, TXU20~TXU60) ^{Note2} 12000V (TX100~TX1000N, TXU100)
Conformed Standards	JIS C8201-7-1 ^{Note3} , NECA C2811 (JIS C2811) ^{Note4} UL1059 (exclud. some types), EN/IEC60947-7-1

Note 1: When the crimped section of the solderless terminal is insulated, the Impulse Withstanding voltage becomes 8,000 V.

Note 2: For TX60 and TXU60, when the crimped section of the solderless terminal is insulated, the Impulse Withstanding Voltage becomes 12,000 V.

Note 3: As of May 2010, JIS C2811 has been replaced by JIS C8201-7-1.

Note 4: NECA C2811 is a standard conforming to the contents of JIS C2811.

Materials

Name	Materials	Flame retardance grade
Terminal Base	Polycarbonate	UL94V-0
Terminal screws	Steel (Zinc plated Chromate Treatment)	—
Conducting Plate	Brass (Nickel plating) Copper (TX400600N, 800N, 1000N)	—
Seal for legends	Fiber Vinyl chloride Polypropylene	—
Cover	Polycarbonate	UL94V-2

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Ratings Compliant to Overseas Standards

■ The Ratings used as conforming products to UL/CSA.

TX, TXU series of Terminal Blocks are certified products by UL and CSA.

The ratings in using products as the UL/CSA conformed ones are as shown below:



File No.:E114903



File No.:LR80644

Product Name		UL Standard (UL1059)						CSA Standard (C22-2 No.158)			
		Ratings Voltage (V)	Ratings Current (A)	Applicable wires AWG (MCM) ^{Note1}		FW ^{Note2}	Tightening Torque (N·m)	Ratings Voltage (V)	Ratings Current (A)	Applicable wires ^{Note1} AWG(MCM)	Tightening Torque (N·m)
Standard Screw	Spring-loaded			Single wire	Stranded wire						
TX7	TXU7	600	10	20~16	20~16	2	0.9	600	10	20~16	0.9
TX10SM3	TXU10SM3	600	15	20~14	20~14	2	0.9	600	15	20~14	0.9
TX10S	TXU10S	600	15	20~14	20~14	2	1.3	600	15	20~14	1.3
TX10	TXU10	600	20	20~14	20~14	2	1.3	600	20	20~14	1.3
TX20	TXU20	600	30	18~10	18~10	2	1.8	600	30	18~10	1.8
TX30	TXU30	600	50	16~12	16~10	2	2.7	600	45	16~8	4.5
TX50	TXU50	600	30	16~10	16~10	2	2.7	-	-	-	-
			65	-	*6	2					
TX60	TXU60	600	80	*14~10	*14~4	2	4.5	600	80	*14~4	5.1
TX100	TXU100	600	115	-	*8~2	2	10	600	115	*8~2	16.9
TX150	-	600	175	-	*6~2/0	2	10	600	175	*6~2/0	16.9
TX200	-	600	230	-	*4~4/0	2	20	600	230	*4~4/0	28.2
TX300	-	600	310	-	*4~(350)	2	20	600	310	*4~(350)	28.2
TX400	-	600	380	-	*1/0~(500)	2	30	600	380	*1/0~(500)	42.5

Note1: The above list applies to connection by bare copper or by crimp terminals. As for Applicable Wires, however, values with * are only for connection by crimp terminals. Please use only crimp terminals with UL or CSA conformance.

Note2: FW1: Wirings at factory, FW2:Wirings at factory and in-field

Note3: If products are used at UL Ratings, connect only one wire to one terminal.

■ The Ratings used as conforming products to EN/IEC

The TX and TXU series terminal blocks are certified by TÜV, an international third-party certification organization, to conform to EN/IEC standards, enabling smoother verification of CE marking compliance for machinery.

The ratings when used as EN/IEC-compliant products are as follows:



License No.:R9551559 (TX Series)

License No.:R9551561 (TXU Series)

Product Name		Ratings Voltage (V)	Impulse Withstanding Voltage (V)	Ratings Current (A)	Applicable wires AWG (JIS) ^{Note}		Tightening torque (N·m)	Connectable Wires
Standard Screw	Spring-loaded Screw				Single Wire	Stranded Wire		
TX7	TXU7	600	6000	15	20~16	20~16	0.9	1 or 2
TX10SM3	TXU10SM3	600	6000	20	20~14	20~14	0.9	1 or 2
TX10S	TXU10S	600	6000	20	20~14	20~14	1.3	1 or 2
TX10	TXU10	600	6000	25	20~14	20~14	1.3	1 or 2
TX20	TXU20	600	6000	40	18~10	18~10	1.8	1 or 2
TX30	TXU30	600	6000	60	16~10	16~8	2.8	1 or 2
TX50	TXU50	600	6000	60	16~8	16~8	2.8	1 or 2
				80	-	*6		
TX60	TXU60	600	6000	110	*14~10	*14~4	5	1 or 2
TX100	TXU100	600	6000	140	-	*8~2	10	1 or 2
TX150	-	600	6000	190	-	*4~(60mm ²)	10	1 or 2
TX200	-	600	6000	300	-	*2~(100mm ²)	20	1 or 2
TX300	-	600	6000	350	-	*2~(150mm ²)	20	1 or 2
TX400	-	600	6000	540	-	* (100~250mm ²)	35	1 or 2

The above table applies to both bare copper wire connections and crimp terminal connections. However, wire types marked with an asterisk (*) are for crimp terminal connections only.

Please note the following points:

For crimp terminal connections: Use insulated crimp terminals, or insulate bare crimp terminals with sleeves, tubes, or tape.

When connecting two bare wires: Use wires of the same size and type (solid or stranded). Do not connect wires of different sizes or types.